

FRESNO, CALIFORNIA

CLASS SPECIFICATION

POWER GENERATION OPERATOR/MECHANIC

FLSA STATUS:

Non-Exempt

CLASS SUMMARY:

The Power Generation Operator/Mechanic is the first and journey level in a two level Utilities Power Generation series. Incumbents are responsible for operating, monitoring, servicing, and repairing power generation facility equipment, including associated and auxiliary equipment used to generate electrical power for use in water/wastewater treatment operations.

The Power Generation Operator/Mechanic is distinguished from the Senior Power Generation Operator/Mechanic, which as lead worker, has responsibility for making work assignments, overseeing the work of other Power Generation Operators/Mechanics, training, ordering and distributing supplies, preparing reports, and performing administrative tasks in the absence of the supervisor.

TYPICAL CLASS ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary.)

**FRE-
QUENCY**

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|----|---|------------------|
| 1. | Operates, repairs, overhauls and implements preventative maintenance of single/dual fuel co-generation power plant, including but not limited to dual-fueled/clean burn engines, single/dual fueled gas turbines, dual-staged steam turbines, high/low-pressure boilers, waste gas flares, diesel and gas emergency generators, gear reduction oil systems, automatic valves, filters, fuel systems, pumps, air compressors, gas and air compressors, cooling tower, water softening systems, heat exchangers, generators, diesel fuel systems, natural gas fired engine driving a production water well and/or other applicable items. | Daily
70%-75% |
| 2. | Performs chemical testing and treatment on circulatory cooling water loop and boiler/feed water. | Daily
15%-25% |
| 3. | Operates human-machine interface computers, designating applicable start and/or stop times in appropriate order based on applicable scenarios and for monitoring Power Generation activities. | Daily
70%-75% |
| 6. | Prepares and maintains logs and records of operational activities to comply with local state and federal Air Quality regulations. | Daily
5%-75% |
| 7. | Inspects, regulates, and implements adjustments to equipment to ensure optimal power output and ensuring compliance with environmental regulations and standards. | Daily
5% |

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<u>TYPICAL CLASS ESSENTIAL DUTIES:</u> (These duties are a representative sample; position assignments may vary.)		<u>FRE-QUENCY</u>
8.	Operates and maintains continuous emissions monitoring system utilizing EPA protocol gasses, including reporting calibrations and performing required audits.	Daily 25%
9.	Ensures compliance and adherence to safety procedures; recognizes and corrects potential on the job hazards, and uses safe operating procedures and safety equipment in performing routine and unusual procedures to ensure the health and safety of staff.	Daily 10%-15%
10.	Monitors gauges, meters, and other measuring and recording devices.	Daily 70%-75%
11.	Monitors supply and equipment inventory and notifies appropriate individual(s) of need for replenishment items.	Weekly 5%
12.	Performs other duties of a similar nature or level.	As Required

Training and Experience (positions in this class typically require):

- Three years of increasingly responsible experience in operating, maintaining, monitoring, servicing, and repairing mechanical and electrical equipment similar to that used in engine and/or gas turbine driven electrical Power Generation Systems is required;

OR

- An equivalent combination of education and experience sufficient to successfully perform the essential duties of the job such as those listed above.

Licensing Requirements (positions in this class typically require):

- Basic Class C License

Positions assigned to a water systems environment Require:

- Water Distribution Operator Certificate, Grade D2

Positions assigned to a Wastewater systems environment:

- California Water Environment Association Mechanical Technologist Grade II Certification

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Knowledge (position requirements at entry):

Knowledge of:

- Applicable tools and equipment utilized in assigned area or responsibility;
- Large dual-fuel/clean-burn or single/dual-fueled Power Generation engines, steam turbines, high/low pressure boilers, generators, compressors, gear reduction oil systems, automatic valves, filters, fuel systems, pumps, air compressors, cooling tower, water softening systems, heat exchangers, generators, diesel fuel systems, natural gas fired engine driving a production water well and associated auxiliary equipment operations, maintenance, and servicing practices;
- Manual and automatic switching operation principles, procedures and practices of generating equipment;
- Mechanical, electrical and hydraulic principles related to the operation and maintenance of power generation systems;
- Layout, equipment, instrumentation and functions of electrical generation, transmission and distribution systems;
- Safe work practices and procedures.

Skills (position requirements at entry):

Skill in:

- Safely operating and maintaining applicable tools and equipment
- Operating and maintaining large dual-fuel/clean-burn or single/dual-fueled Power Generation engines, steam turbines, high/low pressure boilers, generators, gear reduction oil systems, automatic valves, filters, fuel systems, pumps, air compressors, gas and air compressors, cooling tower, water softening systems, heat exchangers, generators, diesel fuel systems, natural gas fired engine driving a production water well and/or other applicable items
- Identifying causes of accidents/injuries/incidents and preventative measures to mitigate future issues; Making recommendations for corrective procedures and measures
- Using computers and applicable software applications
- Preparing, analyzing, and maintaining operational records
- Prepare and proofread clear, concise, and comprehensive reports, records, and other written documents
- Testing water for proper chemical levels
- Ability to quickly evaluate situations and make quick decisions on the appropriate actions necessary to keep the equipment operating properly and safely
- Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the general public, business, organizations, elected and appointed officials, media, etc. sufficient to exchange or convey information, give/receive work direction

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Physical Requirements:

Positions in this class typically require: feeling, finger dexterity, grasping, hearing, repetitive motions, seeing, talking, bending, kneeling, lifting, reaching, standing, stooping, walking, balancing, climbing, crawling, crouching, pulling and pushing.

Very Heavy Work: Exerting up to 100 pounds of force occasionally, and/or in excess of 50 pounds of force frequently, and/or in excess of 20 pounds of force constantly to move objects.

Incumbents may be subjected to moving mechanical parts, electrical hazards, vibrations, fumes, odors, dusts, poor ventilation, adverse weather conditions, environmental hazards, gasses, chemicals, oils, work space restrictions, inadequate lighting and intense noises.

Note:

The above job specification is intended to represent only the key areas of responsibilities; specific position assignments will vary depending on the business needs of the department.

Classification History:

Draft prepared by Fox Lawson & Associates (LM)

Date: 12/2007

Reviewed by the City of Fresno

Date: 5/2008